

CLAIMS

1.-21. Canceled

22. (Previously presented) A human or non-human animal vaccine comprising at least two components, with the two components administered either concurrently, or co-administered within a month, where the first component is an adjuvant comprising one or more antimicrobial agents and the second component is one or more antigenic agents.

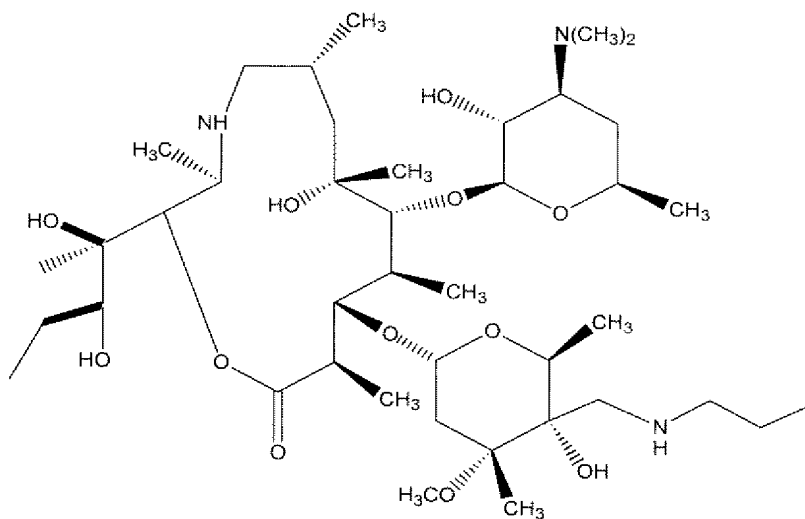
23. (Previously presented) A vaccine of claim 22 where the antimicrobial agent is a macrolide or beta-lactam antibiotic.

24. (Previously presented) A vaccine of claim 22 where the vaccine is for non-human animals, where the antimicrobial agent is selected from the group consisting of tulathromycin and ceftiofur, and where the antigenic agent is one or more antigens selected from one or more from the group consisting of *M. haemolytica* antigen, *M. haemolytica* leukotoxin, *M. haemolytica* capsular antigen, *M. haemolytica* soluble antigen.

25. (Cancelled).

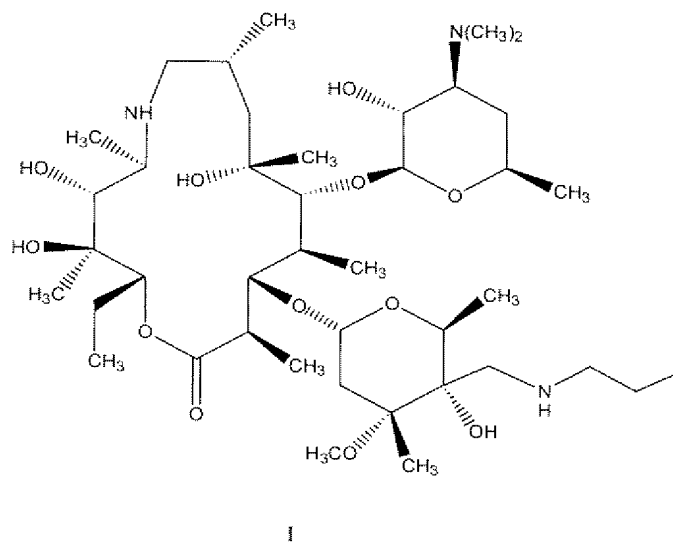
26. (Cancelled).

27. (Previously presented) An adjuvant composition of claim 22, further comprising a compound of formula II:



II

28. (Amended) An adjuvant composition of claim 27, further comprising (a) a mixture of compounds of formulae I



and II in a ratio of about 90% \pm 10% to about 10% \pm 10%, respectively; (b) water; and (c) one or more acids present at a total concentration of from about 0.2 mmol to about 1.0 mmol per mL of the composition.

29. – 30. (Cancelled).

31. (Previously presented) A vaccine comprising the antimicrobial adjuvant compositions of claim 27 administered either concurrently or co-administered with an antigen.

32. (Amended) A vaccine comprising any of the antimicrobial adjuvant compositions of claim 28 administered either concurrently or co-administered with an antigen selected from any *M. haemolytica* antigen.

33. – 41. (Cancelled).

42. (Withdrawn) A method of preventing a disease caused by a pathogenic agent, cancerous cell, or allergen in an animal comprising the step of administering the adjuvant compositions or vaccines described herein and in claim 22 to an animal susceptible to said disease.

43. (Withdrawn) A method of preventing a disease caused by a pathogenic agent, cancerous cell, or allergen in an animal comprising the step of administering the adjuvant compositions or vaccines described herein and in claim 24 to an animal susceptible to said disease.

44. (New) The vaccine of Claim 32 further comprising one or more water-miscible co-solvents present in an amount of from about 250 to about 750 mg per mL of the composition.